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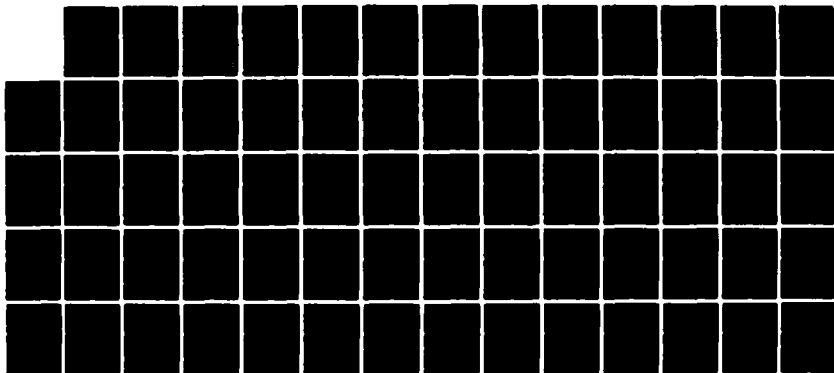
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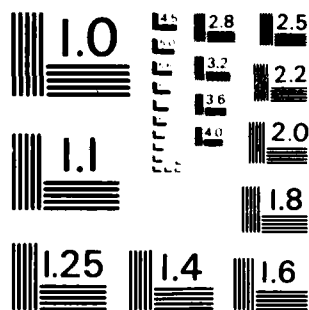
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# Organizational Behavior Research

Department of Management

Department of Psychology

The Effects of Social Information,  
Co-Worker Credibility and Social Cue  
Unanimity on Task Perceptions,  
Satisfaction, and Performance

Charles H. Goretsky

James B. Shaw

Emilio Sarabia

September, 1983

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Prepared for:

Office of Naval Research  
800 North Quincy Street  
Arlington, Virginia 22217

This report was prepared under the Navy Manpower  
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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER TR-ONR-2	2. GOVT ACCESSION NO. AD A134 164	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) THE EFFECTS OF SOCIAL INFORMATION, CO-WORKER CREDIBILITY, AND SOCIAL CUE UNANIMITY ON TASK PERCEPTIONS, SATISFACTION, AND PERFORMANCE		5. TYPE OF REPORT & PERIOD COVERED Technical Report
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Charles H. Goretzky, James B. Shaw, Emilio Sarabia		8. CONTRACT OR GRANT NUMBER(s) N00014-83-K-0388
9. PERFORMING ORGANIZATION NAME AND ADDRESS Department of Psychology Texas A&M University College Station, Texas 77843		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NR-475-019
11. CONTROLLING OFFICE NAME AND ADDRESS Organizational Effectiveness Research (code 442) Office of Naval Research Arlington, VA 22217		12. REPORT DATE September, 1983
		13. NUMBER OF PAGES 64
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report)
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release, distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES Supported by Office of Naval Research Manpower R&D Program		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) social influence, job perceptions, job satisfaction, job performance, co-workers, job design.		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This study assessed the effects of socially-provided task information, the credibility of the influence agents and the amount of agreement between the influence agents on the task perceptions and satisfaction of individuals learning a new job. A 2X2X2 factorial design was utilized, with a sample of 174 undergraduate females. The levels of the three independent variables were: (1) positive versus negative social cues, (2) high versus low model credibility, and (3) unanimous versus deviant cue presentation. Results indicated no effect of social cues upon either perceptions or satisfaction, although differences —		

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were in the predicted direction for perceptions. A significant social cues X cue unanimity interaction was found for the overall satisfaction measure, albeit in a manner contrary to that anticipated. While model group credibility had no appreciable effect on the dependent measures, social cues had significant effects on both quantitative and qualitative indices of performance. All results are discussed in terms of prior research, and implications for future research are considered.

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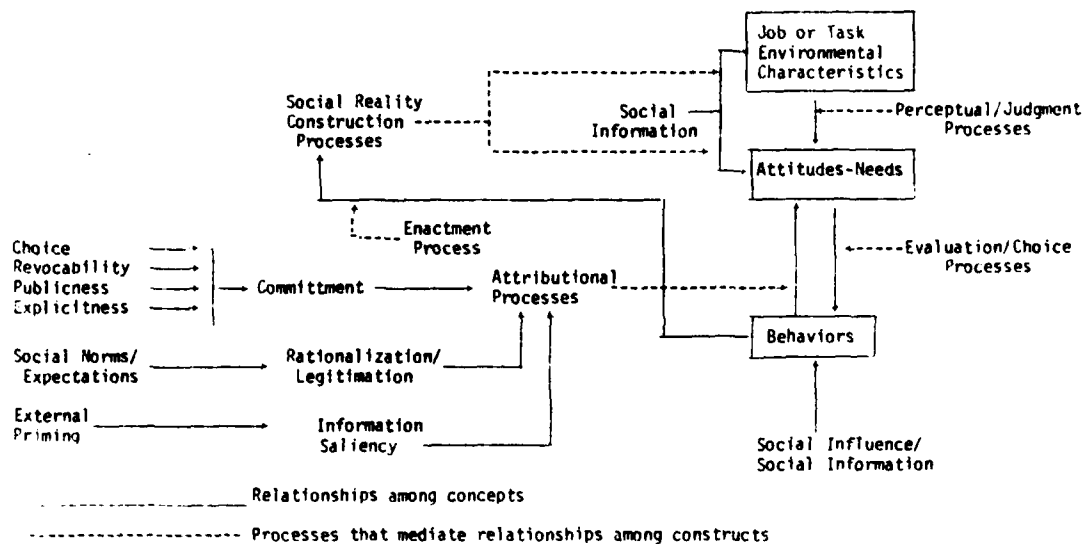
## Introduction

The formulation of employee job perceptions is a critical aspect in the consideration of transition socialization processes. The extent to which co-workers influence the perceptions and satisfaction of new employees may very well affect the degree to which successful socialization into an organization occurs. If one can understand the intricacies of this social influence process with regard to new employee perceptions and satisfactions, a more complete conceptualization of the dynamics of the transition socialization may be achieved. With such a conceptualization in hand, better and more efficient programs to insure proper socialization may be designed. The present study will be undertaken to investigate the degree to which the nature of the social cues transmitted affect an individual's task perceptions. Also, of interest are the effects of differing levels of influence group consensus of the transmitted perceptions, as well as the perceived credibility of the influence group.

The present research focus is based on the idea that task perceptions are not formed on the basis of objective characteristics alone, but are also formed in part by information provided by the relevant working environment, which in large is defined by one's social contacts or environment. Thus, discussion of the social information processing approach follows.

### The Social Information Processing Approach (SIP)

This approach differs from other approaches based upon need satisfaction models (i.e. Hackman and Oldham, 1976), which state that personal characteristics (i.e. needs) are stable, and can predict one's attitude and behaviors. The SIP (in figure 1), in contrast, views needs not as an inherent property in individuals, but rather as outcomes produced by those individuals. It proposes



\*Salancik and Pfeffer (1978)

Figure 1. Social Information Processing Approach to Job Attitudes and Task Design.



that attitudes, beliefs, and behaviors are adapted to the social context, which provides cues as to the construction and interpretation of events. These cognitive, affective and behavioral components of task behavior are derived from three sources according to this approach: the social environment, one's own cognitive processing/perception of the affective components of the job, and the interpretation of environmental cues as to the reasons for past behavior. Therefore, simply redesigning a job to fulfill worker needs will not necessarily increase satisfaction, because it is the information that co-workers share which will define the level of satisfaction.

Put more simply, Salancik and Pfeffer asserted that task characteristics are actually "socially constructed realities, mediated by the individual's social environment" (1977, p. 431).

This idea that information about the environment may act to influence one's perception of that environment has a great deal of support in the social psychology literature. The effect of socially relevant others upon an individuals' attitudes and behaviors is a well-documented phenomenon (Sherif, 1936; Sherif and Hovland, 1961; Bandura, 1976). In addition, Weiss and Shaw (1979) demonstrated that modeling processes of relevant others may well affect the manner in which employees react to their jobs. Thus, a strong possibility exists that task perceptions may well be formed not only by the objective characteristics of the job, but also in a large part by socially-transmitted (job-related) information. This conceptualization has received a great deal of attention and support in the research (White and Mitchell, 1979; O'Reilly and Caldwell, 1979; O'Connor and Barrett, 1980; Weiss and Shaw, 1979; Shaw and Weekley, 1981), and is widely accepted as a highly valid approach to the study of job design.

### INFORMATION CUE DEVIANCE

Research on job design utilizing the SIP, much like the earlier social influence research in social psychology (i.e. Asch, 1956), which demonstrated the effects of social cues on stimulus perception, utilized unanimous informational cues (all negative, all positive or all neutral) with regard to the stimulus. This may be viewed as being quite artificial, due to the fact that a given group of individuals (e.g. a work group) will rarely view their jobs in exactly the same light. Some may see their jobs as high in scope while others may see their jobs as being low in scope.

As previously stated, research on social conformity has demonstrated the effect of a unanimous group of socially relevant others upon the reported perceptions of a "target" individual. But the more realistic case where a lack of consensus among the co-workers exists has yet to be studied in the context of job design. In fact, Blau and Katerberg (1982) note that "in all laboratory studies thus far, only unanimous social information cues were administered" (p. 595), and suggest designing future studies more realistically by utilizing mixed social cues.

Moscovici (1976) asserts that "when an individual or subgroup influences a group, the main factor of success is behavioral style" (p. 109); he maintains that of the five behavioral styles he proposed had an effect on influence attempts, consistency was the most crucial. He states that the consistent deviant is perceived as highly confident due to the opinion repetition and avoidance of contradictory behavior exhibited, and thus is seen as more credible.

## CREDIBILITY OF INFLUENCE AGENT(S)

The preceding point is of particular interest in the present context. In the social learning and social psychology literature, many examples of the effect of a models' credibility upon learning and imitative behavior have been observed. For example, Bandura (1969) asserts that the success of an influence attempt (modeling) is partly dependent upon a "process involving symbolic representation of similar consequences occurring to oneself in the same situation" (p. 202). If a model displays competence (i.e. task success), which is a desirable behavioral consequence, it may well be that the tendency for an individual to imitate the perceptions or behaviors associated with such an outcome will be higher than if no such competence is displayed. Therefore, it may be postulated that if a model displays success or has experience with a task to be subsequently performed by the subject, the social information transmitted should carry more weight in influencing the perceptions and affective response of subjects.

Evidence for this is found in studies by Baron (1970), Rosenbaum and Tucker (1962), Mausner and Bloch (1957), and Spitzer and Davis (1978). Blau and Katerberg (1982) assert in their review that the results "suggest that social cues given by more credible sources should have greater impact on incumbent task perceptions", and that "future tests of SIPA should consider manipulating source credibility" (p. 545). It can be concluded then, that the credibility of a model may well have an effect on the degree to which a models' informational cues are successful in the influencing of a subjects' task perceptions.

Overall, the literature on job design and social influence suggests that an individuals' task perceptions are formed in conjunction with his/her social environment. The effect of socially relevant others upon the formation

of task perceptions and affective responses is evident, yet the manner in which it has been demonstrated is seen as being somewhat artificial. A need to look at the more realistic situation where not all co-workers report the same basic responses to the task exists. Also of interest is the credibility of the individuals transmitting the task-related social cues, in that past research has shown that influence attempts are more successful when the transmitter is more competent/experienced.

The present study will be conducted to assess the influence of three factors upon task perceptions, attitudes and performance. Independent variables to be manipulated include social information (positive versus negative) cues, unanimity of cues (unanimous versus deviant, where one out of three models gives conflicting affective cues), and group credibility

### Hypotheses

Research by White and Mitchell (1979), O'Reilly and Caldwell (1979), Weiss and Shaw (1979) and others has demonstrated that the nature of task responses is a function of the nature of the social cues transmitted. Positive cues have been shown to result in more positive task perceptions and satisfaction. Therefore, it was predicted that:

- I. Positive information groups will perceive the task as significantly more enriched and will report greater task satisfaction than negative information groups.

Because the research of Moscovici (1976), Allen (1965, 1975) and others has demonstrated that the presence of an individual whose

reported perceptions differ from the majority reduces the pressure to conform to the majority opinion (for the target individual), it was hypothesized that subjects in a "deviant" condition would respond differently than those in an "unanimous" condition. Specifically:

II: Subjects in unanimous cue conditions would both perceive the task and report satisfaction levels different from those in the deviant cue conditions, in that the subjects in deviant cue condition would be less influenced by the social cues. Specifically, the positive-unanimous groups would perceive the task as more enriched and satisfying than positive-deviant groups, who would respond more to the objective characteristics of the task, and negative-unanimous groups would perceive the task as less enriched and satisfying than negative-deviant groups.

Research by Mausner and Bloch (1957), Spitzer and Davis (1975) and others has demonstrated that the more credible a model/influence agent is, the more successful the influence attempt (towards reported perceptual conformity) will be. The possibility that such an effect will occur with regard to task perceptions is strong; thus:

III. A three-way interaction between social information, model group credibility and unanimity would be observed on perceptions and satisfactions, such that the social cue X cue unanimity interaction

would be stronger in a high credibility condition than in a low credibility condition.

From the literature, it can be seen that mixed support exists for productivity increases based on positive informational cues. White and Mitchell (1979) reported significantly higher production quantity for the positive cues group than in the negative cues group ( $F(1,37) = 14.28, p < .01$ ). White, Mitchell and Bell (1977) found no effects of social cues upon performance measures. Shaw and Weekley (1981) also found no differences in performance among the positive, negative and neutral (control) groups, although significant differences on task satisfaction were observed.

Griffin (1981b) reported mean productivity increases for groups with objective task changes only. The objective-change-only group (94.5/100 to 103.5/100) and positive cues-objective change group (96.6/100 to 105.6/100) showed quantity increases after the redesign effort, while the control group (103.2 to 102.4) and positive-cues-only group (100.0 to 99.7) experienced slight decrements in performance. In their review of the task characteristics-performance link in the SIP literature, Griffin, Welsh and Moorhead (1981) state that the observed results are contradictory and thus inconclusive. This conclusion is consistent with the present review, and because of this lack of conclusiveness, making a specific hypothesis concerning

performance would be tenuous. Therefore, in the present study, the task characteristics-performance relationship will merely be observed, due to its' inclusion in the Job Characteristics framework.

## METHOD

The present study utilized a "Training Observation Film" as a disguised medium for transmitting the social cues and cue unanimity manipulations, in which actresses ("subjects from a previous study") made general affective remarks about the task. The model group credibility manipulation was included in the experimenters' instructions to subjects. After those instructions were given, subjects viewed the films, performed the task, and completed the post-experimental questionnaire.

### Subjects

One hundred-seventy-four female undergraduate introductory psychology students participated for course credit. Only females were utilized due to the possible confounding or moderating effects of sex on the degree to which social influence attempts were successful. Between twenty and twenty-three subjects were included in each of eight experimental conditions.

### Design

A 2X2X2 Factorial design was utilized, with social cues (positive versus negative), model group unanimity (unanimous opinion versus deviant opinion), and model group credibility (high versus low) comprising the three independent variables.



### Experimental Task Materials

The task involved the checking of a circuit board (prepared especially for the present study) for "assembly errors." Each circuit board was a 12" by 16" piece of 1/8" pegboard, framed underneath with 1" X 2" strips of wood. 7/8" screws served as electrical leads, and come up through existing holes in the board. The leads were connected to each other with color-wires. The board was set up such that there were seven individual circuits, each comprised of a positive and negative wire (both of the same color), and a flashlight bulb. When properly assembled, the bulb associated with the circuit illuminated. Each board was rigged such that circuit numbers two, four and five did not illuminate properly. All boards were identical in both appearance and assembly.

Each research participant was provided with a "Quality Control Inspection Guide". This guide included: a two-page set of written task instructions; an "Inventory Guide", which gave the wire color, amount and type of connector ends and nuts for each wire as they should have appeared on the board; a wiring diagram; a "Decision Points" section, which gave the number of "error points" to be assigned for the number of errors in each assembly category; and a "Quality Control Decision" section, which was used to make recommendations for the hypothetical lot of fifty boards from which the one board was supposedly drawn. Additionally, a "Quality Control Report" was provided to record, wire-by-wire, the

assembly specifics, their correctness, and the reason why the circuit did/did not work properly. A "Quality Control Summary" sheet which was utilized to record error totals, decision points and final recommendations was also provided.

#### Task Procedure

In all phases of this research, the same task was used. After receiving verbal instructions and reading the written instructions located in the "Quality Control Inspection Guide", subjects checked the board, wire-by-wire, for correctness against the "Inventory Guide." The next step involved actually testing the circuit by flipping the master switch (which served to break the circuit). If the bulb associated with the circuit illuminated, they continued on to circuit number two. If the bulb did not illuminate, subjects were to test the circuit to locate the problem.

Once all seven circuits were tested and recorded, all columns were to be totalled in provided spaces. These totals were then transferred to the "Quality Control Summary" sheet. Subjects next referred to the "Decision Points" section and assigned points to each error category. Subtotals and an overall total number of points were computed and recorded on the "Summary". Then referring to the "Quality Control Decision" section, recommendations were made based on those subtotals and totals as to whom the report was to be forwarded, and whether or not to accept the hypothetical lot as good enough to be shipped out.

### Measures

The Job Diagnostic Survey (JDS; Hackman and Oldham, 1975) was utilized to measure task perceptions. The mean internal consistency reliability was found to be .67, which is comparable to the .68 observed across ten studies by Aldag, Barr and Brief (1981). Individual scale reliabilities observed in the present study included: Autonomy (.68), Task Identity (.54), Skill Variety (.57), Task Significance (.75), and Feedback (.74). The median off-diagonal correlation, an index of discriminant validity, was observed to be .15 in the present study, while Aldag, et al. (1981) reported it to be .36 in the ten studies they reviewed. The average scale intercorrelation was found to be .11, suggesting mutual exclusivity of the five scales, as predicted in Hackman and Oldham's (1975) original model. Table 1 displays the JDS scale intercorrelations.

Task satisfaction was measured by an adapted form of the Minnesota Satisfaction Questionnaire (MSQ; Carlson, Dawes, England and Loftquist, 1962), from which scales measuring sources of satisfaction unrelated to the present study (social status, compensation, etc.) were dropped. Eight scales were retained, with three items from each scale being utilized in the present study for a total of 24 items. Individual scale reliabilities obtained were as follows: Activity (.77), Independence (.89), Variety (.78), Ability Utilization (.82), Responsibility (.85), Creativity (.79), Recognition (.86) and Achievement (.83)

Table 1

JDS Interscale Correlations

	<u>MPS</u>	<u>VAR</u>	<u>IDENT</u>	<u>SIGNI</u>	<u>AUT</u>	<u>FDBK</u>
MPS	1.00	.29	.36	.29	.71	.66
Skill Variety		1.00	-.17	-.06	.32	.00
Task Identity			1.00	.15	.04	.27
Task Significance				1.00	.00	.21
Autonomy					1.00	.18
Feedback						1.00

Six additional scales were developed especially for the present study. Because past research has demonstrated that situational ambiguity can affect the degree to which social influence attempts are successful, two three-item task ambiguity scales (pre- and post-) were utilized to measure the level of perceived ambiguity and to see if it changed over the course of the experimental session. The ambiguity pre-test measure was observed to have an internal consistency reliability of .54, while the post-test produced a reliability estimate of .74.

Three manipulation check scales were also included in the post-experimental questionnaire: a three-item social cues scale, with a .90 internal consistency estimate (e.g. "How satisfied did the workers in the film appear to be with the task they had to do?"); a four-item cue unanimity scale, with .74 reliability (e.g. "All the workers in the film reacted the same way to the task); and a five-item model group credibility scale, with a .81 reliability estimate (e.g. "The people in the films were very good workers"). Additionally, a similarity-to-model-group scale of five items included to assess the effectiveness of that control procedure was observed to effect a .79 reliability estimate.

Three measures of performance were utilized in the present study: The number of correctly completed boxes on the Quality Control Report and Quality Control Summary (PERF1); the total number of boxes completed (PERF2) and a ratio of the two (PERF1/PERF2), identified as PERFORMA.

These measures provided both quantitative (PERF2) and qualitative (PERF1 and PERFORMA) performance scores.

#### Instructional Film

The first film (videotape) subjects viewed was an instructional film which described the experimental task. The film (3 minutes) was narrated and involved the demonstration of the checking method, explanation of the task set-up, and description of the task materials.

#### Training Observation Film

After viewing the instructional film, subjects viewed another, longer (5 minutes) film of three "subjects from a prior study" performing the task. Subjects were given a 1/2 page handout which served to focus their attention on task procedures. Subjects were introduced to the film, and it was explained that those subjects (actresses) had no idea that they were being filmed. The research participants were informed that previous research has shown that the comments of other workers are very helpful in new workers' learning the task. Although under the guise of a "training film", the films transmitted the social information cues concomitant with each condition.

Four separate films were used: positive cues-unanimous opinion, positive cues-deviant opinion, negative cues-unanimous opinion and negative cues-deviant opinion. In each film, three "prior subjects" (actresses, all undergraduate volunteers) were seen performing the experimental task. In the films, the workers could be heard conversing.

The nature of that conversation was the same in all films, with the workers discussing classes, hometowns, etc. The workers made either positive or negative affective remarks, each one making one statement halfway through and at the end of the tape, such as "Hey, this is pretty fun" (positive), or "This is really boring" (negative).

The unanimous cues films had all three workers expressing the same positive or negative reactions to the task, and the deviant cues films involved two workers expressing positive/negative task reactions, while the third disagreed by making negative/positive task-related remarks.

#### Credibility Manipulation

Model group credibility was manipulated in the instructions, such that the high credibility groups were informed that:

The individuals you will see performing the task in the second film were filmed after receiving training somewhat like that you will be receiving. These workers were chosen because of the high intelligence and eye-hand coordination they exhibited in experimental pre-tests. They comprised the highest performing group in the previous study. You will watch them because research has shown that people learn better when they observe top performers doing the same task.

In the same manner, low credibility groups were informed that:

The individuals you will see performing the task in the second film were filmed after reading the Quality Control Packet only. They were chosen because of the relatively moderate-to-low intelligence and eye-hand coordination they exhibited in experimental pre-tests. You will watch them because research has shown that people learn better when they observe average-to-low performers. This seems to be a result of being able to learn from others' mistakes.

#### Procedure

The experimental sessions were conducted in a behavioral laboratory with six individual rooms, each equipped with a table, chair and television monitor. All subjects initially read the task instructional packet in the same room. When completed, the experimenter returned, wherein he read the rationale and instructions for the session, in which it was explained that participants would view two tapes, instructional and training observation. They were then told that past research has demonstrated that employee training time and efficiency are enhanced when employees view other employees performing the same task. Participants were also informed that the individuals in the film were Freshman and Sophomore Texas A&M students enrolled in Introductory Psychology like themselves, which served as a control for subject-model



group similarity, insuring that all subjects view the model group as similar to themselves. This is based on research by Festinger (1954), Berscheid (1966), and a review by Collins (1970), who observed that the more an influence agent is perceived as similar to the subject, the more effective the influence attempt will be. The model group credibility manipulation (high versus low) was then verbally administered. Additional, subjects were told that since previous research has shown that the comments of other workers are helpful in new workers' learning of the task, those comments heard in the background would be kept in the training observation tapes.

Subjects were then taken to separate rooms. Five subjects were run per session, with each session having the same condition. They completed the task ambiguity pre-test to ascertain the initial level of perceived situational ambiguity. This is based on the work of Asch (1952) and Luchins (1955), among others, who have found that the more ambiguous a stimulus or stimulus situation is, the more effective social influences upon stimulus perception will be. The ambiguity scales were utilized to ascertain whether or not the stimulus situation (task to be performed) was truly ambiguous as was assumed in the hypotheses.

Subjects then viewed the two tapes back-to-back, and were instructed to complete as much of the experimental task as possible in the 15 minute allotted. After 15 minutes of task performance, the experimenter instructed subjects to put down all materials and gave them the post-experimental questionnaire, including the JDS, MSQ and the six previously

described manipulation/control check scales. The ambiguity post-test was used to ascertain whether or not the ambiguity level changed over the course of tape viewing and task performance. This could have affected the degree to which the participants were susceptible to the social influence attempts, and could serve to explain any lack of influence on task perceptions and satisfaction. Debriefing ended the session.

## RESULTS

In order to determine whether or not the hypotheses were confirmed in the present study, several analyses were conducted on the data. Three-way Analysis of Variance (ANOVA) procedures were utilized to test the main hypotheses, with social cues (positive versus negative), cue unanimity (unanimous versus deviant), and model group credibility (high versus low) comprising the independent variables. Dependent variables included task perceptions (JDS), task satisfaction (MSQ) and three performance scores: number correct, number attempted and number correct divided by number attempted. Additionally, the five individual JDS scales and the eight MSQ scales were utilized to further test the hypotheses on a more specific level.

To test the effectiveness of the three manipulations and two control procedures (subject-model similarity and situational ambiguity), manipulation check scales were also analyzed via three-way ANOVA procedures, using these scales as dependent variables.

Additionally, a dependent groups t-test was used to compare mean pre-(versus) post-experimental situational ambiguity, since a significant change in ambiguity over the course of the individual experimental sessions could have affected the degree to which social influence attempts were successful.

To observe the maximum potential effect of the social cues manipulation, it was necessary to insure that the objectively perceived enrichment level of the task was of a moderate value to

preclude any "ceiling" or "floor" effects on the ratings made by subjects. To that end, a pilot study was conducted such that subjects (selected randomly from the same population sample used in the main study) were merely instructed verbally on task procedures, given 15 minutes to work on the task, and were administered the JDS only. The data (n=12) produced a mean MPS of 52.67, and an average (combined) subscale score of 3.5 (where 4.0 is moderate). Thus, the objective (non-manipulated) task characteristics were considered to be of a moderate level. The main study (n=174) produced slightly lower mean values (MPS = 47.23, Average Scale Score = 3.39). Means and standard deviations of all variables used in the analyses are presented in Table 2. Only those individual questionnaire items upon which significant main or interaction effects occurred are listed. Results of correlational analyses conducted on all dependent variables are presented in table 3.

The following results are organized and presented by hypothesized relationships.

#### Manipulation Checks

To ascertain the effectiveness of the manipulation procedures, scales (as previously described) were included in the post-experimental questionnaire to measure the subject's perceptions. The three main manipulation check scales (social cues, cue unanimity and credibility of models) were submitted to Analysis of Variance (ANOVA) procedures,

Table 2

Means and Standard Deviations For  
 All Variables Used in Analyses  
 (Total Sample, N = 174)

<u>Scale</u>	<u>Variable</u>	<u>Mean</u>	<u>Standard Deviation</u>
<u>JDS</u>	MPS	47.32	33.87
	Variety	2.40	1.15
	Identity	3.35	1.32
	Significance	3.59	1.44
	Autonomy	3.42	1.47
	Feedback	4.12	1.47
<u>MSQ</u>	Overall Satisfaction	2.72	.68
	Activity	3.74	.84
	Independence	3.41	1.11
	Variety	2.47	.98
	Ability Utilization	2.18	.99
	Responsibility	2.50	1.06
	Creativity	2.40	.99
	Recognition	2.31	.96
	Achievement	2.75	1.10
<u>Performance</u>	Number Correct	88.49	41.17
	Number Attempted	101.69	43.24
	Number Correct/Attempted	.86	.13
<u>Manipulation Checks</u>	Social Cues	2.83	2.00
	Cue Unanimity	3.02	.64
	Credibility	3.12	.72
<u>Control Checks</u>	Ambiguity Pre-test	3.01	.74
	Ambiguity Post-test	2.81	1.12
	Similarity	3.00	.84
<u>Individual Items</u>	IDENT1	3.75	1.72
	IDENT2	3.30	1.83
	IDENT3	2.99	1.89
	VAR1	2.43	1.49
	VAR2	2.37	1.50
	VAR3	2.59	1.72

Table 3

## Intercorrelations of all Dependent Measures

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
1) Total Completed	1.00	.95	.48	.07	-.44	.21	.18	-.06	.14	.06	.25	-.05	-.23	-.14	-.13	-.21	.07	-.06
2) Total Correct		1.00	.22	.11	-.35	.20	.13	-.00	.15	.06	.23	-.01	-.24	-.11	-.17	-.04	.06	-.04
3) PERFORMANCE			1.00	-.06	-.41	.09	.16	-.15	.06	.06	.14	-.13	-.09	-.12	-.15	-.21	.04	-.09
4) MPS				1.00	.29	.36	.24	.71	.66	.02	.15	.34	.25	.48	.42	.28	.43	.46
5) Variety (JDS)					1.00	-.17	-.06	.32	.00	.14	-.13	.36	.32	.28	.29	.17	.05	.23
6) Identity						1.00	.15	.04	.27	.02	.12	-.02	.04	.05	-.00	.14	.26	.14
7) Significance							1.00	.00	.21	.76	.06	-.10	.06	.00	.01	.10	.29	.10
8) Autonomy								1.00	.18	.10	.10	.31	.20	.56	.52	.27	.13	.40
9) Feedback									1.00	.06	.11	.20	.17	.20	.17	.15	.45	.29
10) Activity										.08	.42	.37	.29	.26	.22	.19	.33	.55
11) Independence										1.00	1.00	.33	.17	.22	.13	.12	.18	.48
12) Variety (MSQ)												1.00	.63	.59	.59	.34	.38	.77
13) Ability Utilization													1.00	.51	.60	.50	.53	.78
14) Responsibility														1.00	.83	.45	.34	.78
15) Creativity															1.00	.48	.41	.78
16) Recognition																1.00	.44	.65
17) Achievement																	1.00	.67
18) Overall Satisfaction																		1.00

and all three were found to have been effective in the predicted directions. A main effect of social cues was observed for the social cues scale ( $F(1, 166) = 204.30, p < .0001$ ), with the positive cues groups yielding a mean rating of 3.65, while the negative cues group yielded a mean rating of 2.02. Similarly, a main effect of cue unanimity was produced for the cue unanimity manipulation check scale ( $F(1, 166) = 55.16, p < .001$ ), with unanimous groups reporting a mean rating of 3.34, and the deviant groups reporting a mean rating of 2.71. The model group credibility manipulation was equally effective ( $F(1, 166) = 22.19, p < .0001$ ), with high credibility groups producing a mean rating on the scale of 3.36, while the low credibility groups produced a mean of 2.88.

In addition, a social cue X cue unanimity interaction was observed for the social cues manipulation (see figure 5). Although there was an interaction, in all conditions the negative condition mean was lower than the lowest positive group mean; thus the interaction is not considered problematic.

#### Situational Ambiguity

Since previous research had shown that the degree of situational ambiguity can affect the extent to which one is susceptible to influence attempts, measures of situational ambiguity were administered prior to and after task performance. This was done in order to observe any changes in the level of perceived ambiguity over the course of the

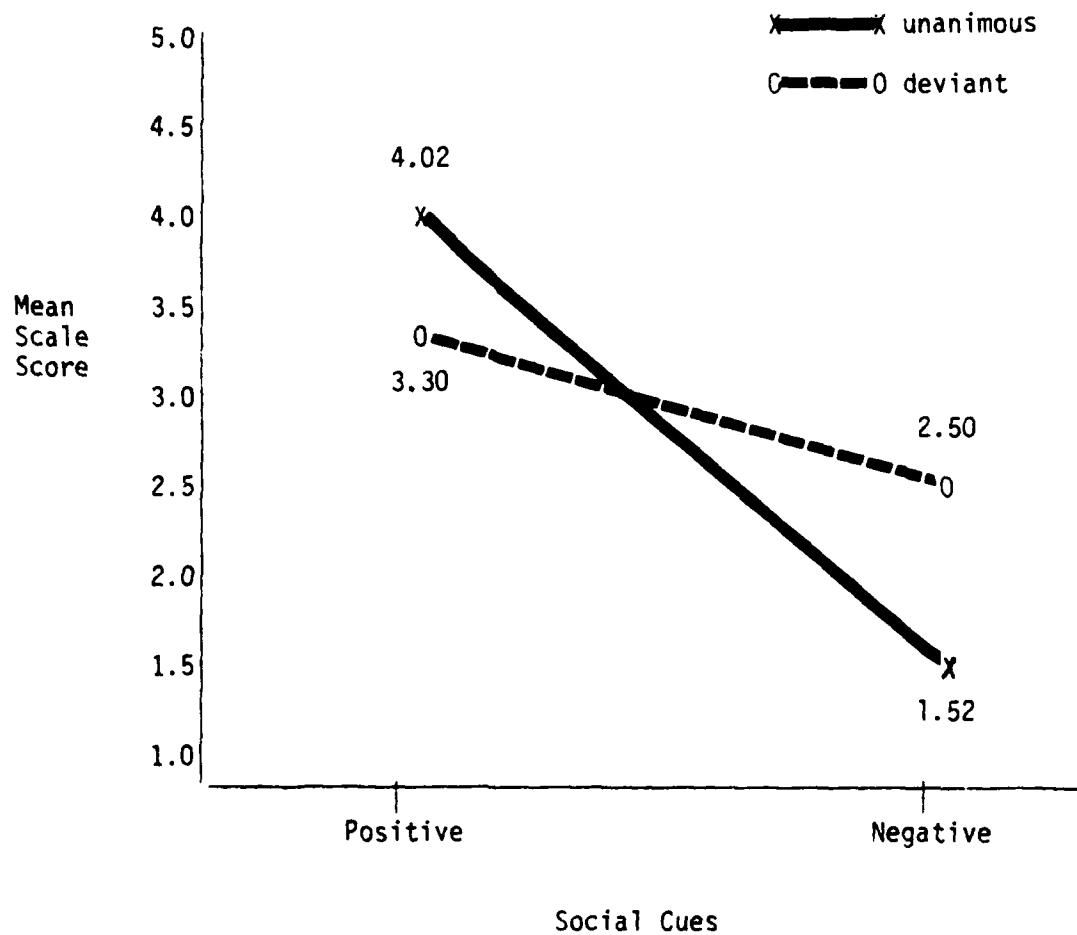


Figure 5. Interaction of Social Cues X Cue Unanimity on Social Cues Manipulation Check Scale.



experimental session. Any significant change could have well affected the success of social influence attempts.

A dependent groups t-test was utilized to ascertain whether or not any significant change occurred. A significant change was seen,  $t(173) = -2.18$ ,  $p < .05$ , such that perceived situational ambiguity had decreased significantly by the end of the experimental session.

Additionally, a significant main effect of model group credibility was observed for the ambiguity pre-test,  $F(1, 166) = 5.12$ ,  $p < .05$ . The high model group credibility groups ( $\bar{X} = 3.13$ ) perceived more a priori ambiguity than did the low credibility groups ( $\bar{X} = 2.88$ ).

#### Subject-Model Group Similarity

The extent to which an individual is susceptible to an influence attempt has been demonstrated in previous research to be affected by the degree of perceived similarity with the influence agent(s), such that the more similar an agent is perceived to be, the greater the probability of a successful influence attempt will be. Due to this, a control procedure was utilized in hopes of assuring that all subjects (in all conditions) perceived the model group as being generally similar to themselves. To that end, an ANOVA procedure was conducted on the similarity (post-experimental) scale. Contrary to expectations, two significant main effects were observed. A main effect of social cues ( $F(1, 166) = 5.74$ ,  $p < .05$ ) was seen, such that the positive cues groups ( $\bar{X} = 2.84$ ) perceived the models as being less similar to

themselves than did the negative groups ( $\bar{X} = 3.15$ ). Additionally, a main effect of model group credibility ( $F(1, 166) = 9.72, p < .01$ ) was observed, such that the high credibility groups ( $\bar{X} = 3.13$ ) perceived the models as being more similar to them than did the low credibility groups ( $\bar{X} = 2.88$ ).

### Hypothesis I

Hypothesis I predicted that the positive information groups would perceive the task as more enriched and would report greater task satisfaction than the negative information groups.

No significant main effects on either the MPS or overall satisfaction measures were obtained, although the social cue effect on the MPS score was in the predicted direction. The positive cues groups ( $\bar{X} = 52.23$ ) reported higher task enrichment levels than did the negative cues group ( $\bar{X} = 42.35$ ).

### Hypothesis II

This hypothesis predicted a social cues X cue unanimity interaction, such that the positive cue-unanimous cue groups would perceive the task as more enriched and satisfying than the positive-deviant groups. The negative-unanimous groups would report less task enrichment and satisfaction than the negative-deviant groups.

While no significant interactions were observed for the MPS as a dependent variable, a significant social cues X cue unanimity interaction was observed for the JDS subscale, Task Autonomy,  $F(1, 166) =$

5.76,  $p < .05$ . However, this was observed to be in a direction contrary to that predicted. Figure 6 displays the observed relationship.

A significant interaction of social cues X cue unanimity was observed, as predicted, for overall satisfaction,  $F(1, 166) = 6.00$ ,  $p < .05$ . However, the results obtained were contrary to a priori predictions made. Figure 7 displays this significant interaction.

### Hypothesis III

Hypothesis III predicted a three-way interaction of social cues X cue unanimity X model group credibility on both the MPS and overall satisfaction. It was predicted that the positive cues- unanimous cues-high credibility group would perceive higher task enrichment and satisfaction than the corresponding deviant cues and low credibility groups, while the negative cues-unanimous cues-high credibility groups would perceive lower enrichment and satisfaction levels than their corresponding deviant and low credibility groups.

No support for this hypothesis was obtained with no significant three-way interactions observed for either the MPS or overall satisfaction.

Task Performance. As previously discussed, mixed support for productivity increases based on positive cues or decreases based on negative cues exists in the literature. Therefore, while no specific hypothesis were forwarded with regard to performance, performance data was collected and analyzed in order to observe any possible relationship between social information and performance.

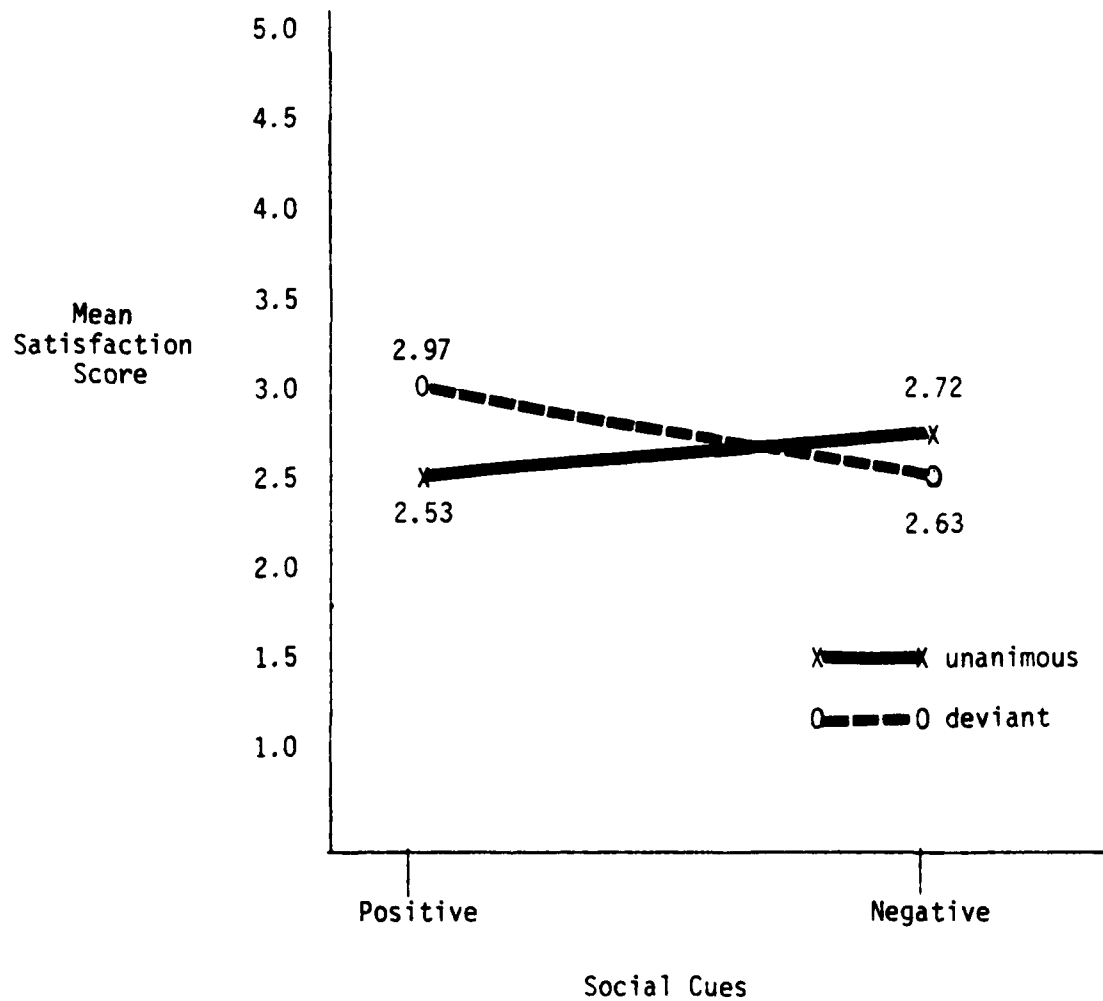


Figure 6. Overall Satisfaction Scores Corresponding to the Social Cues X Cue Unanimity Interaction.

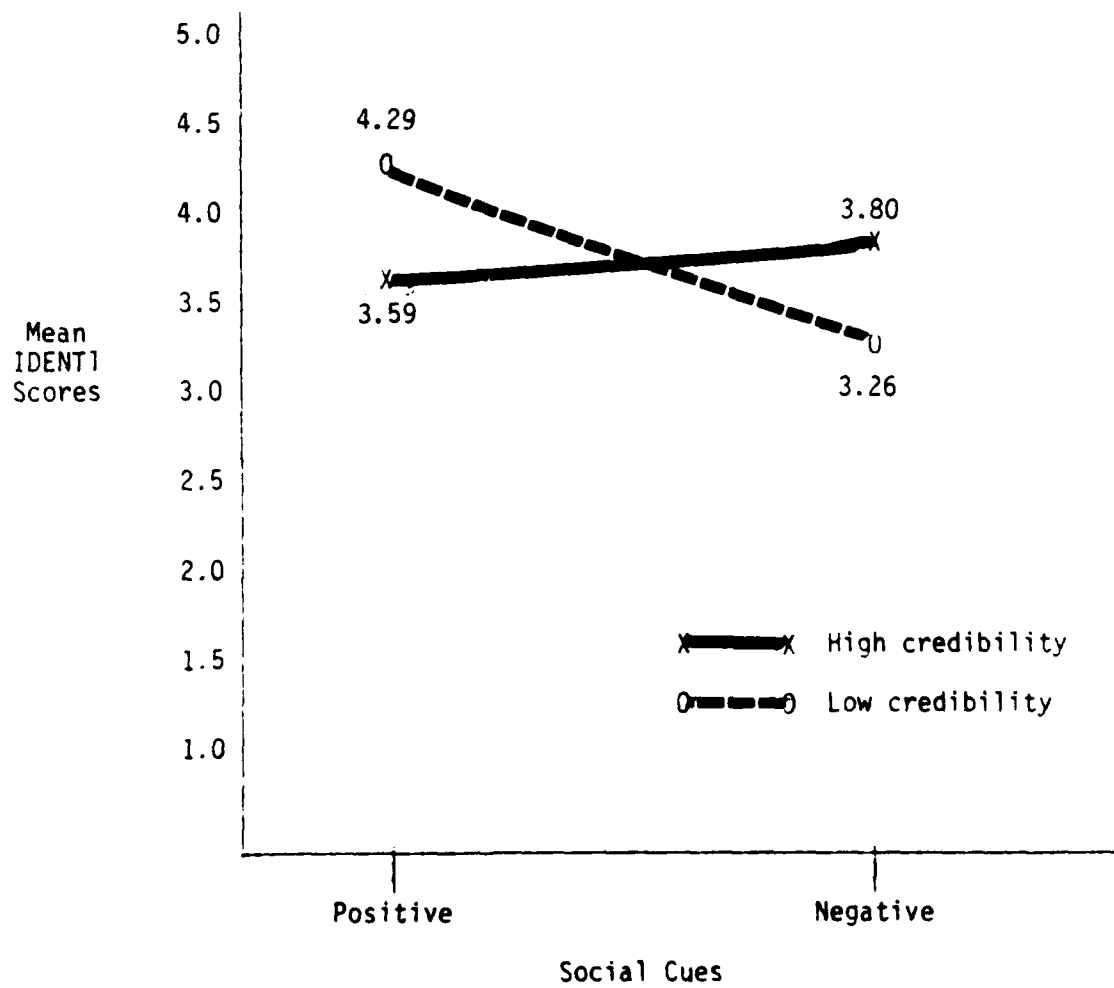


Figure 7. IDENT1 Scores Corresponding to Scale Cues X Model Group Credibility Interaction.

A significant main effect of social cues was observed for two of the three performance scores. PERF1, the qualitative measure representing number correctly completed ( $F(1, 166) = 10.12, p < .01$ ) was affected such that the positive cues groups performed significantly higher ( $\bar{X} = 98.58$ ) than did the negative cues groups ( $\bar{X} = 78.63$ ). Additionally, PERF2, the quantitative score representing the number attempted ( $F(1, 166) = 10.29, p < .01$ ) was affected in like manner, with the positive cues groups performing significantly better ( $\bar{X} = 112.22$ ) than the negative cues groups ( $\bar{X} = 91.40$ ).

It was also observed that cue unanimity affected PERF2 in the expected direction, although it did not reach significance. The unanimous cues groups performed better ( $\bar{X} = 107.92$ ) than did the deviant cues groups ( $\bar{X} = 95.74$ ).

Miscellaneous Results. For reasons of poor (below .70) reliability, items on two of the JDS subscales were analyzed separately using ANOVA procedures. Two of the items comprising the JDS subscale Task Identity (scale reliability = .54) showed significant differences between groups. A significant social cue  $\times$  credibility interaction ( $F(1, 166) = 5.92, p < .05$ ) was found for IDENT1 (a Task Identity scale item), such that the positive cues-low credibility group ( $\bar{X} = 4.29$ ) reported the highest perceived level of task identity, whereas the negative cues-low credibility group ( $\bar{X} = 3.26$ ) reported the lowest. Figure 8 displays this relationship.

A significant main effect for cue unanimity,  $F(1, 166) = 4.56, p < .05$  was found for IDENT2, a Task Identity scale item. The unanimous

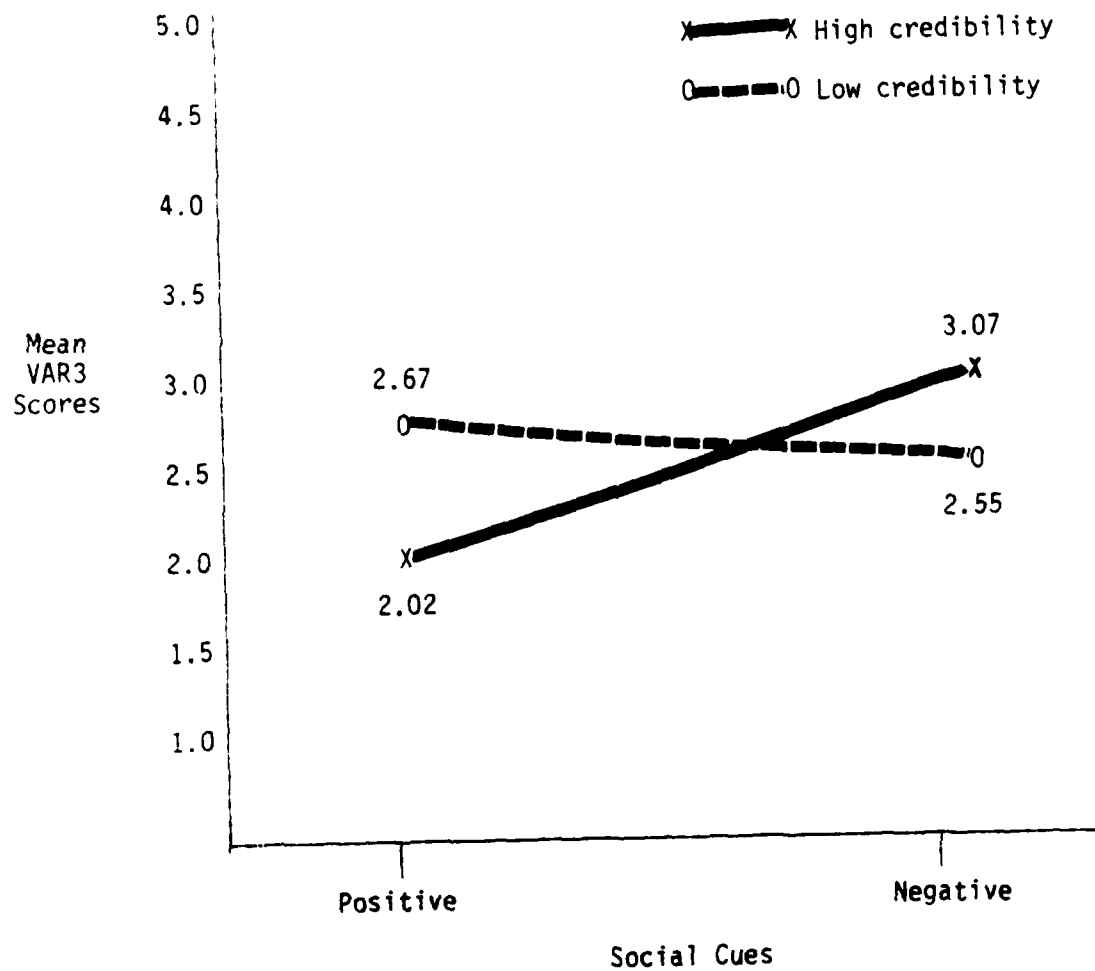


Figure 8. VAR3 Scores Corresponding to Social Cues X Model Group Credibility Interaction.

cue groups ( $\bar{X} = 3.61$ ) perceived high task identity based on the single item than did the deviant cues groups ( $\bar{X} = 3.0$ ).

For one of the three items comprising the JDS subscale Variety (scale reliability = .57), VAR3, there was a significant interaction of social cues X model group credibility,  $F(1, 166) = 4.90, p < .05$ . The result obtained indicated that the positive cues-low credibility groups ( $\bar{X} = 2.67$ ) perceived the highest level of variety on the single questionnaire item, while the positive cues-high credibility groups ( $\bar{X} = 2.02$ ) perceived the lowest level. Figure 8 displays this relationship.

Three of the eight MSQ Scales were observed to have main and interaction effects as dependent variables in ANOVA procedures. Significant main effects of cue unanimity were observed for all three scales. Responsibility ( $F(1, 166) = 4.77, p < .05$ ) was affected such that the deviant groups reported higher mean satisfaction (2.67) than did the unanimous cue groups (2.33). Satisfaction with creativity ( $F(1, 166) = 5.64, p < .05$ ) produced a higher group mean for the deviant groups also (2.57), than the unanimous groups (2.20). Finally, satisfaction with recognition ( $F(1, 166) = 7.49, p < .01$ ) was affected similarly, such that deviant groups reported higher satisfaction on that scale (2.49) than the unanimous cues groups (2.11).

A significant social cues X cue unanimity interaction was observed to be almost identical on all three scales: Responsibility



( $F(1, 166) = 9.24, p < .01$ ); Creativity ( $F(1, 166) = 10.16, p < .01$ ); and Recognition ( $F(1, 166) = 5.83, p < .05$ ). In all cases, positive-deviant groups reported the highest satisfaction, while the positive-unanimous groups reported the lowest. Figures 9, 10 and 11 display these interaction effects.

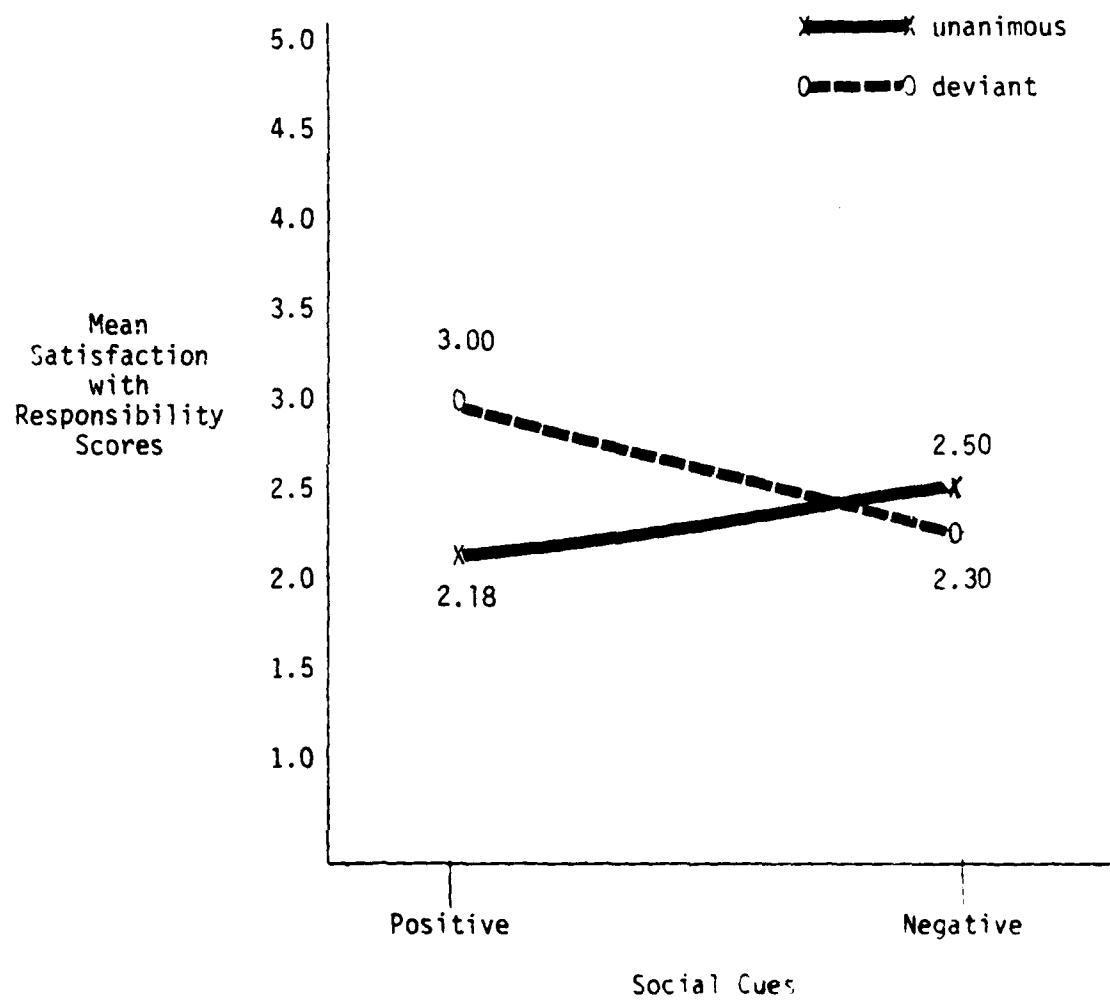


Figure 9. Satisfaction with Responsibility Scores Corresponding to Social Cues X Cue Unanimity Interaction

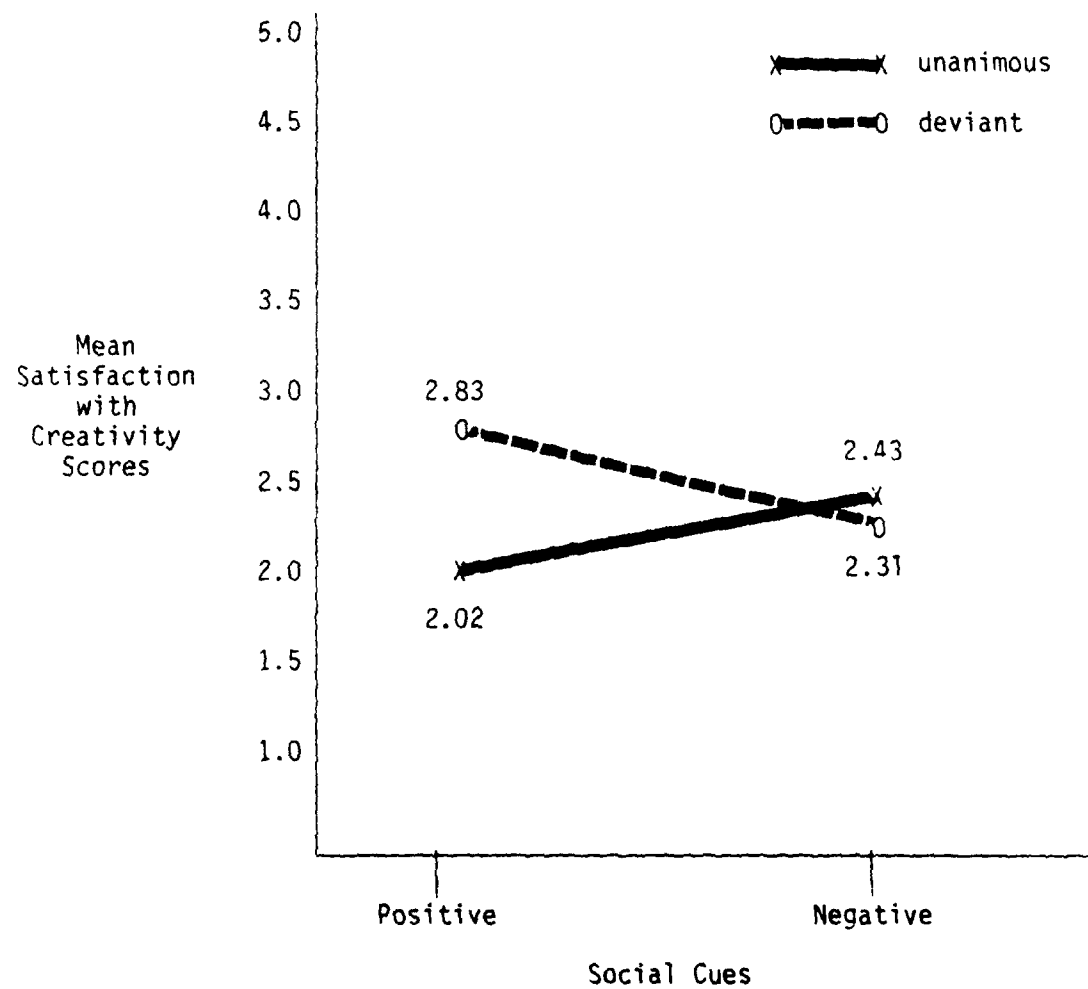


Figure 10. Satisfaction with Creativity Scores Corresponding to Social Cues X Cue Unanimity Interaction.

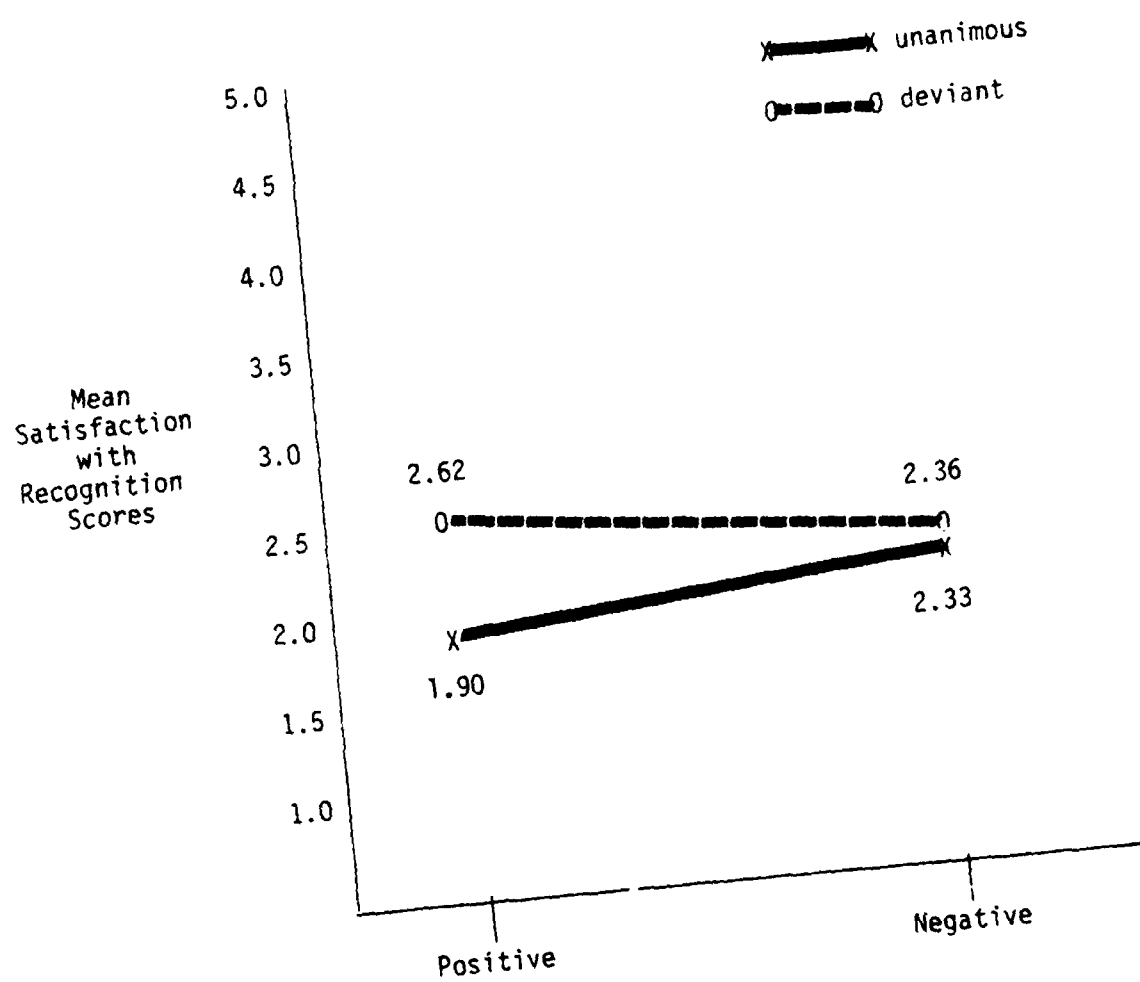


Figure 11. Satisfaction with Recognition Scores Corresponding to Social Cues X Cue Unanimity Interaction.

## DISCUSSION

Recent research on job design has suggested that the shared job perceptions of co-workers can affect the job perceptions, satisfaction and performance of an employee, regardless of the objective characteristics of the job. The present study was conducted to further investigate this issue by observing the effects of not only social cues (positive versus negative), but also characteristics of the informational cue presentation (unanimous versus deviant group opinion) and of the co-workers themselves (high versus low credibility).

While in the present study social cues did not significantly affect task perceptions or satisfaction, there was a pronounced effect on both quantitative and qualitative indices of performance. Additionally, a significant interaction effect (cues x cue unanimity) was observed for the overall task satisfaction score, while the predicted three-way interaction (cues x cue unanimity x model group credibility) was not observed as anticipated. These and all other results will presently be considered in detail.

### Hypothesis I: Impact of Social Cues

While a variety of studies have demonstrated that social cues have a consistent effect on task perceptions (e.g., Weiss and Shaw, 1979; O'Reilly and Caldwell, 1979; White and Mitchell, 1979) the present study did not. The effect, while not significant, occurred

in the expected direction. One possible explanation for this relates to the observed change in situational ambiguity.

Situational Ambiguity. The change in situational ambiguity over the course of the experimental session (50 minutes) could well have affected the subject's need for task related information to help them define their work environment. If the ambiguity level changed that quickly, then perhaps the cues were not as critical to the definition of the environment for subjects as was presupposed. In fact, Asch (1956) demonstrated that in situations of low ambiguity, it is easier for individuals to obtain objective information about the stimulus, thus reducing the individual's need for stimulus-related information from others in the social environment.

It should be noted, however, that while change in perceived situational ambiguity could partially account for the lack of a significant social cues effect on task perceptions, it may be viewed as lending credence to the realism of the otherwise artificial laboratory environment. Situational ambiguity will change over time as a function of job/task experience in real-life settings, and the question of whether or not social information has the same effect early on as in later stages of the employment experience has yet to be answered. Griffin and Bateman (1983) suggest that such a difference exists, in that past research (i.e., Weiss and Shaw, 1979) has really focused on more of an organizational socialization issue, with experimental subjects being presented with a new job. Rakestraw and Weiss (1981) observed differential effects

of social influences based on task experience, such that inexperienced worker-subjects were influenced more than experienced ones. Perhaps the general affective cues utilized in the research were really only salient to employees who are new to the organization. Such individuals do not know their job well enough to discuss it in terms other than the most general, which serves to help them quickly define their new environment. Given that the subjects in the present study reported a significant drop in perceived ambiguity over the course of a 50-minute session, it is plausible that more specific informational cues would have been needed to successfully influence their perceptions and satisfaction. While a general social cue of, "I like/dislike this job" could lose its saliency after a period of initial socialization and job experience, specific cue statements might become more salient. For example: "I wish my supervisor wouldn't constantly look over my shoulder" (negative autonomy cue); "My boss always tells me when I'm doing a good job" (positive feedback cue); "My job is dull - I always do the same kinds of things" (negative variety cue); "The products I build are very important to the public" (positive significance cue); and, "I wish I could build the entire carburetor, not just install the gaskets" (negative task identity cue). A series of studies examining the effects of these specific cues on task experienced versus inexperienced subjects could help advance the knowledge in the field in a most important manner. In this way, we could look more at the effect of social cues on job re-design, rather than simply on job

design efforts.

Hypothesis II: Interactional Impact of Social Cues and Cue Unanimity

The prediction of a social cues x cue unanimity interaction on satisfaction was observed, although in a different direction than was anticipated. It was hypothesized that the positive cues - unanimous opinion groups would report the highest level of task perceptions and satisfaction. That group actually reported the lowest satisfaction of all four groups.

From the data, then, it would appear that the deviant cues expressed in the films caused stronger conformity to the majority position than in the unanimous conditions. Possible explanations for this finding are: 1) rejection of the opinion deviant, 2) psychological reactance, and 3) the similarity/dissimilarity of the influence agents with the subjects.

Rejection of the Opinion Deviant. According to Festinger (1950), groups assert strong social pressure for opinion congruity, either for validation of the group members' opinions or for achievement of group goals. He adds that much of the group's communication will be directed towards the opinion deviants if they are seen as persuasable. If the deviants are observed to be unmovable from their positions, the group members will either change their opinions to coincide with the deviants' (minority influence) or reject their opinions and reduce communications with these individuals. The data from the present study indicates that subjects in the deviant



conditions did not accept the opinions of the deviant, and therefore, it is possible that they in fact rejected the deviant model based upon her opinion deviance. This possible explanation has empirical support from Schacter (1951). Schacter assembled subjects under the guise of the formation of undergraduate clubs who discussed (as an initial task) a case history of a delinquent and were to make a group recommendation concerning his treatment plan. Three confederates were planted in each group: one who took the majority position and held it, one who took a deviant position but moved toward the majority position, and another who took a deviant position and maintained it throughout the course of that discussion. The groups' communications and the selection of members to committees (either high or low in attractiveness and prestige) were monitored as measures of rejection. Schacter (1951) observed that the deviant who held his/her position received less communication over time and was nominated significantly more by fellow group members for the low-attractive and prestige committee. Thus, the opinion - deviant was rejected by group members. It is possible then, that the deviant's opinion in the present study was rejected, thus causing the more extreme cases of conformity by the deviant groups.

One possible problem with the preceding argument as an explanation for the greater conformity observed in the deviant cues groups is that if in fact the deviant opinion was rejected, it would create a situation wherein two models had greater influence over subjects

than did three models (in the unanimous groups). An explanation for this "hole" in the prior explanation emanates from Reactance Theory.

Psychological Reactance. A third possible explanation for the lower conformity levels which occurred in the unanimous cues groups emanates from Reactance Theory (Brehm, 1966). The term "psychological reactance" refers to a motivational state which operates in opposition to perceived threats to, or actual elimination of ones' freedom (i.e., of choice). In the case of social influence attempts, the greater perceived pressure to conform by the individual, the more reactance will move that individual towards the opposite direction; this applies both to behaviors and attitudes (Wiklund, 1974).

Wiklund (1974) asserts that:

"Given that someone is aware of the existence of more than one side [of an issue], and provided the freedom to adopt any possible position is of some importance, reactance will be created when only one side of the issue is presented to him" (p. 44).

Evidence for such an effect is provided by Jones and Brehm (1970), who manipulated awareness (versus unawareness) of the existence of two sides of a hypothetical court case, and receipt of one or both sides (arguments and evidence) of the case. The authors observed that if the subject has the opportunity to adopt one of the two positions on the issue under consideration and is presented with only one side of that issue, reactance occurs, and serves to decrease the potency of the influence attempt.

Applying the preceding arguments to the data observed in the present study, the possibility exists that subjects in the unanimous cue groups, who received only one type (positive or negative) of cue, experienced reactance to the one-sided communications. On the other hand, the deviant cues groups received both sides of the issue under consideration (positive and negative), and according to this line of thought experienced less or no reactance. Thus, Reactance Theory may serve as an alternate explanation for the results which occurred contrary to predictions.

The Similarity/Dissimilarity of Influence Agents With Subjects.

Another possible explanation for the observed results emanates from Attribution Theory (Kelly, 1967). According to this theory, individuals will make attributions about the causes of another's (i.e., the influence agent) stated judgment. The attribution will be either that the agent has made an objective, accurate appraisal of the entity being judged, or that the agent's judgment resulted from his/her own biases or motives.

Goethals (1976) uses this theory to qualify the conclusions of many social psychologists who have found that the greater the perceived similarity is between agent and subject on the part of that subject, the more influential the agent will be (see Collins, 1970 for a review of that literature). Goethals contends that dissimilar agents can be more influential than similar agents in particular situations. In general, he asserts that subjects are naturally aware that their perceptions could possibly be clouded

by their own biases. If a similar individual agrees with that perception, it is possible that they have fallen prey to similar biases and distortions that the subject was affected by. On the other hand, if a dissimilar individual agrees, that perception could not be caused by a shared personality attribute, forcing the attribution that only the objective characteristics of the entity being judged could account for the agreement.

Such a phenomenon is referred to as the "Triangulation Effect" (Goethals and Nelson, 1973), in that the judgment is supported by others with different perspectives on the same issue being considered. Thus, if the reported perception of the dissimilar agent is congruent with that of the subject, the agent can give greater confidence to the perceived accuracy of the subject's own judgment. This effect has been demonstrated to occur only when the influence agent is making objective, factually-based judgments of the entity, thus causing an attribution of object-based reality as the case of the agents' reported perception. If the judgment of the agent was based on the opinions of the agent (which emanate from his/her values or biases), the triangulation effect does not occur (See Goethals, 1976 for a review of this literature).

This attribution theory-based conceptualization of Goethals' offers an alternative explanation as to why, in the present study, the deviant cues groups were influenced more drastically than the unanimous cues groups. The observed social cues x cue unanimity interaction, which occurred in an opposite direction from that predicted, had the positive-deviant groups reporting the highest

task satisfaction, while the negative-deviant groups reported the lowest of the four groups. Recalling that a main effect was found for social cues on perceived similarity, such that the positive groups reported less model group similarity than did the negative groups, it is possible that the positive-deviant model (who was thus a "dissimilar disagreeer" with the majority) had little effect on the confidence of the majority-influenced opinion held by the subject, (according to Goethals, 1972 and Goethals and Ryan, 1975). and thus the higher perceived satisfaction as reported. Similarly, in the negative-deviant condition (disagreeing, positive remarks), in which the model group was seen as more similar, subjects could well have been less influenced by the deviant, who was a "similar disagreeer," and according to Goethals (1972) and Goethals and Ryan (1975 ) should have reduced subject's confidence in their own perceptions, thus adding credence to the majority opinion. Thus, attribution theory can serve as an explanatory mechanism for the observed interaction effect. In like fashion, the social cues x cue unanimity interaction found for the JDS subscale Autonomy could well have occurred for the reasons previously mentioned, or it could have been a chance (.05 level) occurrence, although the former appears to be more plausible.

### Hypothesis III: The Impact of Model Group Credibility

As to the predicted 3-way interaction which was not observed, it is possible that the components of credibility as manipulated were not salient to the subjects utilized. Perhaps the IQ and eye-hand coordination facets of the manipulation did not mean as much to the female college students as, for example, the GPR or SAT scores of the models. While the group performance (in the "previous study") facet appears to have been a necessary and salient component of the manipulation, the others are suspect. Perhaps a pilot study aimed at discovering what "makes" an individual a credible job-information source to this population sample would have made the manipulation more effective.

Hovland and Weiss (1951) suggest that the two most critical dimensions of credibility in the context of social influence are expertise and trustworthiness. While expertise was a facet of the present study's credibility manipulation ("best performing group in the previous study"), trustworthiness was not included, and might also have produced a stronger effect if utilized.

### The Impact of Social Cues on Performance

The most significant finding in the present study was the effect of social information on both quantitative and qualitative performance measures. Griffin, Welsh and Moorhead (1981) assert that such a finding has not been consistently observed (13 studies

reviewed), yet the present study found strong support for the effect and suggests that the issue is far from resolved. A need for more experimental controls to isolate the effect and under what conditions it will occur is evident. This study controlled for situational ambiguity and subject-model group similarity, and observed differences between the variously manipulated groups. Few of the previous studies in this area have reported control procedures to help further delineate such conditions or individual characteristics under which social informational cues may affect differences in any outcome variables. Individual differences (e.g., Protestant Work Ethic, Hulin and Blood, 1968; Higher Order Need Strength, Hackman and Lawler, 1971) provide an exception to this; however, these have been observed to have little consistent effect in previous research (White, 1978).

With regard to the lack of a social cues-performance finding in many earlier studies, several possibilities exist as to why such an effect has not been observed. Griffin, Welsh and Moorhead (1981) reviewed 13 related studies and reported that in only five were direct performance measures utilized. The others used either supervisory- or self-ratings, which the authors contend are replete with error variance. They assert that such scores "are, at best, only moderately valid and meaningful" (p. 662). While direct measures of performance presumably engender less error variance, only one out of five studies using actual performance measures supported the job scope-performance relationship; they add, however, that three out of

the four non-supportive studies utilized dependent (performance) measures which were suspect in terms of validity. Additionally, the claim of Griffin, et. al. that the performance variable needs to be specified more in terms of its components (quality, quantity, effort) is seen as an important criticism of past research. The present study utilized separate measures of performance (quality and quantity) and observed significant effects of social cues on both. Each of these might be tied to different task characteristics in the Hackman and Oldham (1980) model (Griffin, Welsh and Moorhead, 1981). Knowledge in the job design area would benefit from such an investigation in the future.

According to Pierce and Dunham (1976), "affective and motivational responses appear to be more strongly related to task design than are behavioral responses" (p. 87). This could also explain the inconsistency of social cue effects on performance. Such an unequal effect on outcome variables is not delineated in the job characteristics model, yet seems to follow from the literature. A need to clarify the role of each outcome variable (motivation, satisfaction, performance) relative to the others is seen here as a critical aspect required in future research.

#### Subject-Model Group Similarity

The present study attempted to control for subject-model group similarity, such that all subjects would perceive themselves as basically similar to the models, thus making all groups equally



susceptible to the social cues. A main effect for social cues on the similarity measure was observed, in that the positive groups perceived themselves as being less similar to the models than did the negative groups. It is possible that the positive groups were not as satisfied with the task as the models reported that they were in the films, and thus felt less perceptual similarity. In fact, the positive cues group had a mean overall satisfaction rating of 2.75 (where 1 = very dissatisfied and 5 = very satisfied). This would indicate that the group fell between "dissatisfied" (2) and "can't decide" (3). Although the negative groups reported even less overall satisfaction on the average (2.68), their perceived level is in line with the negative social cues they received, thus accounting for the greater perceived similarity with the model group.

A main effect of credibility was observed on the similarity measure also, indicating that the high credibility groups perceived greater similarity with the models than did the negative groups. This may be attributable to a tendency on the part of the subjects to identify more with successful individuals, using them as a reference group. The low credibility groups saw themselves as less similar in all likelihood as a protective self-concept measure. The manipulation itself attributed negative characteristics to the models in the low credibility group (low IQ, eye-hand

coordination, performance, etc.), making them undesirable as objects of self-comparison.

### Situational Ambiguity

The finding that the high credibility groups perceived higher a priori ambiguity than did low credibility groups was unexpected and needs to be explored. It is plausible that those subjects were intimidated to an extent by the fact that they would be expected to perform in similar fashion. This idea has support from Rakestraw and Weiss (1981), who assert that subjects will tend to use the model(s) as a standard of self-evaluation. If this was the case, those high credibility group subjects could well have felt greater pressure to perform well, and since they had yet to receive the task instructions, were more uncertain of their ability to learn and perform the unknown task at a high caliber, thus the higher perceived ambiguity. Perhaps more significant are the actual data, which when closely scrutinized reveal a less meaningful picture. The five point Likert-type scale (1 = low perceived ambiguity, 5 = high perceived ambiguity) had as its mid-point a "can't decide" option, which anchored the number three on the scale. The actual means, 3.13 for high credibility and 2.88 for the low credibility group, are equidistant from the mid-point, which represents uncertainty as to the response. This observation renders any conclusions tenuous.

### Miscellaneous Results

Main effects of cue unanimity were observed for the MSQ subscales Responsibility, Creativity and Recognition, in which the deviant cues groups perceived significantly higher satisfaction levels than the unanimous cues groups. Looking at the group means, the unanimous groups on all three scales were very close to "2" (dissatisfied) while the deviant groups hovered between "2" and "3" (can't decide). Perhaps the deviant opinion expressed in the films created uncertainty in the judgments of subjects as to their true affective reactions. As it would appear that the deviance manipulations affected more conformity in the present study overall, perhaps the unanimous groups relied more on their own reactions towards the slightly-less-than-moderately enriched task, while the deviant groups were affected by either the positive or negative nature of the cues, thus the mean response which hovered about the scale midpoint.

The social cues x cue unanimity interaction which was observed on the same three subscales (responsibility, creativity and recognition), occurred in the same manner in each case, with positive-deviant groups reporting the highest satisfaction, and the positive-unanimous groups perceived the lowest satisfaction on these three subscales. The near-identical pattern exhibited in all three was also comparable to the same interaction observed for overall satisfaction, and thus could well account for a good deal of the variance observed in that overall satisfaction interaction.

Additionally, the three subscales were seen to correlate with each other at a relatively high level (Responsibility x Creativity = .830; Responsibility x Recognition = .454; Creativity x Recognition = .481), thus accounting for the near-identical results.

The findings related to the individual scale items (IDENT1, IDENT2, VAR3) were seen as being not of great significance, due to the fact that they were based on individual items. It would be tenuous to discuss data trends based upon single item responses. These data may well have produced significant effects based upon chance alone.

#### Future Research

A major issue in need of future consideration relates to the artificiality of laboratory studies utilized in job design research. In previous research, the cues as presented to research participants are clearly task-related and either positive, neutral or negative (White and Mitchell, 1979). One could safely assume that much of the social interaction on the job is not task-related. One important issue which needs to be addressed is the amount of interaction time actually spent discussing task-related issues. Past studies (i.e. Weiss and Shaw, 1979) have used general affective statements ("I like this job," "I dislike this job") as cues. Griffin and Bateman (1983) add to this problem by noting that the frequency with which cues are presented is too high to be considered natural. The authors report that White and

Mitchell's (1979) study had a confederate present 12 verbal cues in a 90 minute session; Weiss and Shaw (1979) presented four cues in 10 minutes; and O'Connor and Barrett (1980) presented at least 12 cues in 3 hours. The present study presented two cues in five minutes. Based on these observations, future studies should include some sort of research in true organizational departments where work similar to the experimental task to be used is being conducted. From that, estimates of the proportion of interactions with significant (supervisors, co-workers) others which are of a task-related (factually versus affectively-oriented) or purely social nature could be made. The cues could then be pre-set so as to approximate those proportions. While the validity of such estimates would naturally be somewhat questionable, the cue presentation would undoubtedly be seen as more realistic; the benefits would outweigh the costs.

Shaw and Weekley (1981) utilized a heretofore unique control procedure. The authors measured the subject's perceptions of the competence of the models to judge the task. The present study manipulated and measured model group credibility, albeit in a most general manner. Considering the previously discussed lack of experimental controls in the research, this one makes too much sense to be neglected anymore.

In addition to these specific issues which need to be considered in the future, several other general issues should be mentioned. The present study used only female participants and

models, necessary because of subject-confederate similarity issues. A need is seen to conduct studies aimed at observing the possible moderating effects of sex on the informational cues - worker perceptions relationship (i.e., two agreeing males and one female deviant with female subjects versus male subjects, etc.). Additionally, more controlled field research is needed to verify or deny the original proposition of Salancik and Pfeffer (1978) in the ultimate setting. A need for more longitudinal research to observe the effects of social informational cues over time would also yield data which, in all likelihood, would provide a more complete framework from which the relationship between social interaction and job perceptions, satisfaction and performance could be studied more adequately.

## CONCLUSIONS

The present study was aimed at investigating the impact of social information, information cue unanimity and influence agent credibility upon the perceptions, satisfaction and performance of workers. While the study found no impact of social cues on perceptions or satisfaction, it did find a strong effect on task performance. Additionally, social cues and cue unanimity interacted to have an effect on respondents' task satisfaction. Model group credibility had no pronounced effect upon any of the main dependent measures.

The lack of any effect of social cues by themselves upon the dependent variables was attributed to the fact that situational ambiguity dropped significantly in the 50 minute experimental session. Subject experience was seen as an important variable which could well affect the impact of social cues in the research paradigm most often used in this area.

As to the interaction of social cues and cue unanimity observed, it appeared that opinion deviants make the research situation more realistic, and were shown to have an important effect upon individuals' job satisfaction. The observed results were attributed to a possible rejection of the deviant opinion-holders, psychological reactance on the part of the subjects in the unanimous cues conditions, and/or the similarity/dissimilarity of the deviant with the subjects.

The lack of an effect of model group credibility was attributed to the saliency of the credibility manipulations. It was, however, still seen as an important variable to be studied in the future based on past psychological research.

The most important finding in the present study was the effect of social cues on both quantitative and qualitative indices of performance. This finding was accounted for because of the direct nature of the scores, as well as the measurement/controlling of ambiguity and similarity, which helped delineate some conditions under which social information can affect performance.

It was also observed that perceived similarity with the model group and situational ambiguity can be important facets in the relationship between social information and outcome variables.

In general, future research needs to consider: (1) the specificity of the social cues transmitted in relation to the experience/tenure level of the individual; (2) explication of the performance variable in terms of its components and its role in the job characteristics model; (3) investigation of the actual amount of worktime spent in social versus task-related interactions; (4) the moderating effects of sex on the social cues - worker perceptions relationships; and (5) more controlled longitudinal and field research to observe the effects of social influence on task perceptions, satisfaction and performance in the natural environment.



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